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Office of the Inspector General

ALERT MEMORANDUM

DATE: September 30, 2009

TO: Cora Marrett
Deputy Director

FROM: Deborah H. Cureton /s/
Associate Inspector General for Audit

SUBJECT: *OIG Review of NSF Recovery Act Awards from "In-house" Proposals*

In keeping with our efforts to focus on the prevention of fraud, waste, and abuse in American Recovery and Reinvestment Act (ARRA or the Recovery Act) programs and funding, we are continuing to conduct "real-time" reviews of the National Science Foundation's (NSF) ARRA-related activities. As such, we have been reviewing NSF activities while they are developed and implemented to provide NSF with more timely and constructive feedback on issues as they arise. This review focused on NSF's funding decisions on "in-house" proposals and whether NSF had a process that reasonably assured that the awards made with ARRA funds would meet the intended recovery, reinvestment, and accountability goals of the Act. It also addressed the adequacy of NSF's policies and procedures to oversee and manage its ARRA programs and institutions. We conducted this assessment as a nonaudit service. As such, it is not subject to Government Auditing Standards.

Results of Review

In response to ARRA, NSF chose to use approximately two-thirds of the $3 billion it received to fund highly-rated proposals that it already had on hand. This decision allowed NSF to quickly and prudently respond to the economic stimulus goal of ARRA by providing a method for NSF to more easily make awards and thus, quickly infuse the marketplace with more cash. In addition, this allowed NSF to make awards more efficiently by not requiring the issuance of new solicitations or additional time and expense for processing new proposals which would have included assessing proposals through NSF's rigorous merit review process. Further, by capitalizing on work that had already been done, NSF was able to respond to ARRA without an overwhelming need for additional staff. This was especially important given that ARRA did not provide NSF with any additional administrative funding. However, this approach was not without risk. Without new solicitations written specifically to respond to the goals of ARRA, new proposals for projects designed to address these goals, or additional merit review that took these goals into account, NSF may not have been able to fund an ARRA portfolio of awards that met ARRA's important reinvestment and recovery goals.

We initiated a limited review of 13 awards made from in-house proposals designed to determine whether NSF was putting in place adequate policies, procedures, systems, and processes to ensure that 1) NSF was meeting the goals of ARRA, 2) awardees would be able to account for ARRA funds, and 3) awards would be able to timely report on ARRA activities. Through this review, we have four suggestions for NSF to improve its continuing management of ARRA funds. First, while we found that program officers have well thought-out decisions for funding proposals that will meet the goals and priorities of ARRA, these decisions are not always documented. We suggest that NSF document these decisions on an award-by-award basis. Second, we suggest that NSF clearly define and communicate the roles and responsibilities for monitoring the burn rate of ARRA funds, in accordance with its award agreements. Third, we request that NSF provide us its plan for mitigating additional risks associated with the more risky programs and institutions funded with in-house proposals. Finally, with respect to recipient reporting, we suggest that NSF finalize and communicate the roles and responsibilities of all relevant NSF staff.

Background, Purpose and Methodology

The Recovery Act provided an additional $3 billion in FY 2009 to NSF for its research, education, and infrastructure programs, increasing its annual appropriations by almost 50 percent. Included in this amount was $2.5 billion for NSF's Research and Related Activities (R&RA) appropriation account, of which $2 billion – two-thirds of the total ARRA appropriation – was not allocated to a specific program. The R&RA program generally consists of grants for basic-research projects to institutions of higher education and other organizations. In an effort to prudently manage and expend these funds as quickly as possible, NSF decided to use the bulk of the ARRA R&RA money to fund proposals that it already had "in-house" rather than soliciting new proposals. All of the available proposals had undergone merit review and been rated very good or better. Some of these proposals either had been previously declined due to lack of funding or were still awaiting a funding decision. However, most of these proposals were received before the ARRA legislation and therefore, risked not addressing the intended goals of the Act. As such, while NSF was in the process of making award decisions on these "in-house" proposals, we reviewed whether NSF was putting in place adequate policies, procedures, systems, and processes to ensure that:

1. NSF and its awardees are accomplishing the relevant economic stimulus goals of the Recovery Act;
2. Awardees are able to properly account for ARRA funds; and
3. Awardees are able to accurately and timely report on ARRA funds and activities.

Our scope was limited to awards made from the pool of "in-house" proposals and did not include awards made under other programs specifically named in the ARRA legislation, such as the Major Research Instrumentation Program. To accomplish this review, we chose a small sample of 13 awards; reviewed documentation in NSF records such as the award abstract, review analysis, and award letter; and interviewed the program officers and grants officials responsible for making each award. To understand the requirements and expectations regarding ARRA, we reviewed the ARRA legislation and implementing executive branch guidance, and also interviewed NSF officials and stakeholders.[1] We prepared an initial assessment of stakeholder expectations regarding the use of ARRA funds at NSF and provided that memorandum to you on May 13, 2009.

NSF Needs to Document Its Decision to Use ARRA funds on an Award-by-award Basis

As communicated through our initial memorandum regarding stakeholder expectations, NSF is expected to meet both the recovery and reinvestment goals of ARRA. Reinvestment will come through NSF providing funding for 1) research infrastructure and equipment, 2) potentially transformative research, and 3) the research workforce of the future. Economic recovery should occur through NSF's 1) investments that lead to job creation and retention, and 2) efforts to reinvigorate the economy through a relatively quick influx of spending. Finally, as with all recipients of ARRA funds, NSF is expected to maintain a high level of transparency and accountability in managing and spending ARRA funds. Similarly, White House guidance on the making of ARRA awards, issued in the early days of ARRA implementation, required that Federal agencies make merit-based funding decisions that take into account the goals of ARRA.

Although our sample of 13 ARRA awards was limited,[2] all of the program officers we interviewed were aware of ARRA goals and NSF's implementing policies, and all carefully considered the priorities in making the decision to fund these proposals with ARRA funds. In fact, we also found during our interviews that many Division Directors articulated Division-specific ARRA priorities beyond those formally stated in NSF's policies and procedures. For example, one Division focused on broadening participation by giving awards to minority and female principal investigators, while another Division considered whether the principal investigator would be newly funded, along with the number of undergraduate students, graduate students, and post-docs that would be supported. Many Divisions or Directorates are also tracking their additional, internal priorities at the Division Director or Assistant Director level.

However, our review found that only 4 of the 13 ARRA award files had clear and complete documentation reflecting the program office's decision rationale and how the awards met NSF priorities for ARRA. It is important that NSF have a clear record of the basis for its ARRA funding decisions given that exigencies of time and limited staffing resources necessitated that NSF use the bulk of its ARRA monies for in-house proposals that were received prior to the passage of ARRA. Also, although NSF's mission to fund basic research allows it to meet the reinvestment goals of ARRA, funding in-house proposals presented a potential risk that funding decisions might not take into account ARRA's other important economic goals. Additionally, NSF received its FY 2009 appropriation at the same time as its ARRA appropriation and program officials were in the position of having to make a choice as to which appropriation to

[1] Stakeholders interviewed include staff members of both the House and Senate Appropriations Subcommittees with responsibility for NSF funding, and representatives from the Office of Management and Budget and the Office of Science and Technology Policy.

[2] We recognize the limitations of our small sample and are not attempting to project any of the observations we have made to the entire universe of ARRA awards. These observations are illustrative in nature and provide examples of areas where NSF may be able to improve its management of ARRA funds.

use to fund the in-house proposals, but were not required to document how the ARRA awards met the goals of the Act.

Specifically, while NSF's policies properly identified the types of award activities that NSF viewed as priorities for ARRA funds, such as new principal investigators, high-risk high-return research, and bolstering infrastructure, it did not require program officials to document how their decision to fund a particular "in-house" proposal met one of these priorities or otherwise furthered the goals of ARRA. Instead, the policies required officials only to include standardized statements in the review analysis and award abstract. In addition, NSF's policies identify an overall agency goal for ARRA of increasing the agency's funding rate, but do not clearly indicate that ARRA awards must also meet one of the specific ARRA priorities in order to qualify for this funding. Accordingly, NSF's policies risked awards being made with ARRA funds that did not further the intended goals of the law..

By not requiring program officers to document the funding rationale in the award file for all ARRA awards, NSF is not capturing this specific information from program officers and Division Directors needed for quick reference when award-level questions are posed by members of Congress, the public or other stakeholders. Given the substantial Congressional and public scrutiny of ARRA funds, it is likely that NSF will be asked to justify the use of ARRA funds on a program portfolio level, if not on certain specific awards. Also, documenting these decisions on an award by award basis would allow NSF to ensure that information is not lost when rotating staff in the Science Directorates leave NSF,[3] and it will also provide easy access to this important information for all staff, including new rotators assigned to monitor the performance of ARRA awards.

Consequently, in order to better meet the requirements and expectations of public transparency and accountability for spending and managing the $2 billion in ARRA funds used for in-house proposals, we suggest that NSF document, in the award file, the rationale for using ARRA funds for each award NSF has made or will make in the future. While we understand that there will be time and effort involved in this process, this burden will be spread over hundreds of program officers, and thereby, should enable a cost effective means of meeting this important accountability and transparency responsibility. We have already seen, through our review of sample awards, that funding rationales need not be lengthy to adequately convey why the decision was made to use ARRA funds.

Guidance is Needed for Monitoring the "Burn Rate" Requirement

To ensure that ARRA funds are spent quickly, NSF not only decided to use the bulk of its funds on "in-house" proposals, but established a policy to help ensure that awardees actually spend the funds as expeditiously as possible. This "burn rate" policy is included in a clause in the NSF-specific ARRA award terms and conditions and is applicable to all ARRA awards. This award requirement states that NSF will monitor ARRA funds, and, "if, after 12 months, no allowable

[3] In our sample of 13 ARRA awards, at least one program officer that made the funding decision has left NSF.

expenditures have been incurred, NSF may consider reducing or terminating the award and reallocating the funds."

Although NSF includes this general clause in the ARRA award terms and conditions, we found through our interviews with program officers and grants officials that NSF staff may not have a full understanding of their roles and responsibilities related to the monitoring of burn rate. For example, one program officer mentioned that he believes program officers should be involved in decisions about consequences for lack of timely expenditures because there may be valid scientific explanations why an awardee would fail to spend funds quickly. However, this program officer was unsure if he would be involved in this decision. Additionally, the burn rate requirement makes a reference to "**allowable expenditures**" (emphasis added), which presumes that program officials and/or officials in the Office of Budget, Finance, and Award Management (BFA) will have to perform some type of review of incurred expenditures. Yet, most program and grants officials were unsure as to whether they would have a role or responsibility in this aspect of the monitoring process.

We recognize that NSF's ARRA policies and procedures are continuing to evolve, and since this requirement for NSF to monitor the burn rate is a term and condition for ARRA awards that have already been made, NSF should ensure its staff receives guidance for answering questions from awardees concerning how NSF plans to oversee and manage compliance with this requirement. Consequently, we suggest that NSF define the roles and responsibilities for both program officers and BFA staff for monitoring the burn rate of ARRA funds in accordance with the award agreement. We also suggest that these policies and procedures be communicated to all responsible program and grant officials.

Plans are Needed to Monitor More Risky Programs and Institutions

The ARRA legislation and executive branch guidance establish expectations for NSF to meet the major goals of reinvestment, recovery, accountability and transparency. To that end, NSF awardees must have the capability to accomplish the ARRA award goals, such as job creation/retention, and also to manage the funds prudently. Consistent with this expectation, NSF has developed special ARRA terms and conditions that include requiring that awardees separately account for ARRA funds.

NSF's policies and procedures also provide guidance to its staff for monitoring ARRA funds. The policies and procedures inform NSF program officers and financial staff that ARRA and non-ARRA funds cannot be commingled, and specifically disallow supplements to grants and/or creativity extensions of existing awards.

While these NSF policies and procedures help NSF ensure that awardees can properly account for funds, certain NSF programs and awardee institutions may present more financial and administrative risk to the agency. In a May 8, 2009 memorandum, we informed you of our assessment of these more risky programs and institutions. NSF has already made or has plans to make awards to many of the more risky programs. For example, NSF has made approximately $32 million in awards to the Small Business Innovation Research program and $30 million to the EPSCOR Research Infrastructure Improvement program to date, and plans to make additional awards to the specific programs mentioned in our May 8 memorandum. In addition, our memorandum included a list of institutions that we considered more risky based on past and on-going OIG audits, and recent A-133 Single Audit reports. NSF has awarded approximately $154 million in ARRA funds specifically to these riskier institutions (see Attachment).

To ensure that all recipients use their ARRA funds for authorized purposes, account for them properly, and comply with laws and regulations, NSF should review the existing information on these institutions, such as audit resolution activities, past site visits, and past A-133 Single Audit reports, and if necessary, obtain additional information from these institutions and determine that problems have been corrected. We request that NSF provide to us, by October 31, 2009, information on NSF current and planned actions to mitigate the potential increased risks of these programs and institutions.

NSF Staff Need Guidance on Oversight Roles Relating to ARRA Reporting Requirements

Finally, the public expects that the use of ARRA funds will result in a positive impact to our nation's economy, including jobs creation and retention. Key information on these kinds of results will become available through the publicly available quarterly recipient reports on individual ARRA awards. Section 1512 of the ARRA legislation requires recipients to submit quarterly reports of ARRA activity no later than 10 days after the end of each quarter. Awardees will submit these reports to a central website, FederalReporting.gov, and Federal agencies must perform a limited data quality review on the reports. The data from these reports will then become available to the public on the Recovery.gov website. The reports will provide an unprecedented level of transparency and accountability at the individual Federal award level. Recipients and sub-recipients are required to report on, among other things, the amount of ARRA funds received, the amount of funds spent, project status, and number of jobs created and/or retained for each ARRA award. The first reports are due in October 2009 for the quarter ending September 30.

OMB and the Recovery Accountability and Transparency Board clarified that agencies must release supplemental guidance to their recipients about how to report on jobs created and retained, and strongly encouraged agencies to reach out to their recipient community about the new reporting requirements as soon as possible. OMB has also suggested that agencies develop and implement internal processes and management structures to review the data quality of recipient reports.

NSF has issued supplemental guidance to recipients on reporting as required by OMB and has recently scheduled training sessions for its program officers for the end of September. These are all positive steps toward dealing with the new recipient reporting requirements, but NSF also needs to finalize and communicate to its program and grants officers the internal roles and responsibilities related to overseeing recipient reporting. The program and grants officers that we interviewed were unclear on the nature of the reports and did not expect to have any role in monitoring recipient reporting. In fact, one program officer was unaware of the additional ARRA reporting requirements for awardees.

While most program and grants officials had not yet received inquiries from awardees about these new reporting requirements at the time of our interviews, we expect that NSF will begin hearing from recipients as the date for the initial reporting period approaches. Thus, it is important that NSF staff have a consistent message to communicate to awardees, a clear understanding of their oversight responsibility, and knowledge as to appropriate agency points of contact to answer specific questions relating to recipient reporting.

In addition, NSF's most recent data quality review plans indicate that program and grants officers will have some role in the recipient reporting and data validation process. NSF has begun holding training to inform program officers of their role in the data quality review process, but these roles have not yet been fully articulated to all program officers and grants staff.

Thus, many program and grants officers may not be fully aware of their roles and unprepared to deal with potential phone calls and other requests for information from the recipient community. If they are unaware of their roles, they may provide inconsistent or inaccurate information to the ARRA awardee community. In particular, the first reporting cycle in October will likely more be more challenging for both recipients and NSF if program and grants officers are unable to provide correct information. Therefore, in addition to plans to hold program officer trainings, which NSF should consider making mandatory, we suggest that NSF finalize the roles and responsibilities of all relevant NSF staff and communicate this information throughout the agency as soon as possible.

As you are aware, we have shared these conclusions and suggestions with NSF officials and are pleased that they have all been received positively. Your staff has informed us that, as noted in this review, NSF did establish priorities for Recovery Act funding and, as the OIG concluded, program officers and division directors carefully considered these priorities in making their award recommendations. Nevertheless, NSF staff informs us that it appreciates the value of ensuring that the rationale for using Recovery Act funds is well documented even though this would be documentation in addition to that normally provided to explain the rationale for funding a proposal. Your staff have also informed us that our conclusions and suggestions regarding monitoring "burn rate," risk management, and guidance on oversight roles related to Recovery Act reporting requirements will help to inform the implementation of NSF policies and procedures for these areas. We will continue to work with your staff in its efforts to implement these suggestions.

Thank you for the opportunity to provide you with comments on NSF's processing of ARRA awards made from "in-house" R&RA proposals and suggestions for making the ARRA award process at NSF more accountable and transparent. Should you or your staff have any questions or concerns regarding this information, please feel free to contact me at (703) 292-7100 and we will be happy to discuss this with you.

ATTACHMENT: ARRA Awards from "In-house" Proposals Made to More Risky Awardees

On May 8, 2009, we sent you a memorandum of our assessment of institutions and NSF programs that may present more financial and administrative risk to the agency. The Recovery Accountability and Transparency Board had asked us to identify more risky institutions and agency programs that could possibly receive ARRA funds. In the memo, we noted that some of the institutions were in the potential pool of ARRA awards. During this review, we have identified awards made to the risky institutions identified in our May 8 memo.[4]

Based on our review of past audits [redacted], we had identified institutions with open audit recommendations for which corrective actions should be fully implemented before releasing funds from ARRA awards. As of September 13, 2009, sixty-nine ARRA awards, with a total value of approximately $45.3 million have been made to these institutions, as shown in the following chart.

Awards Made to Institutions with Outstanding Audit Findings

INSTITUTION	AWARD NO.	COMMITTED AMOUNT	OBLIGATED AMOUNT
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[4] Not all of the awards identified are from the $2 billion used for "in-house" proposals, but we wanted to highlight all ARRA awards to these risky institutions.

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[redacted]

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[redacted]			
Total for institutions with outstanding findings		**$289,352**	**$44,963,497**

In addition, we identified other institutions that we believe deserve additional oversight by NSF if they receive ARRA funds. As of September 13, 2009, 225 ARRA awards with a total dollar value of approximately $108.4 million have been made to these institutions, as shown below.

Awards Made to Institutions Deserving Additional Oversight

INSTITUTION	AWARD NO.	COMMITTED AMOUNT	OBLIGATED AMOUNT
[redacted]			

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[redacted]

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Total for institutions worthy of more oversight		**$3,928,795**	**$104,424,126**